WO 2005/053215 PCT/KR2004/003079

FIG. 1

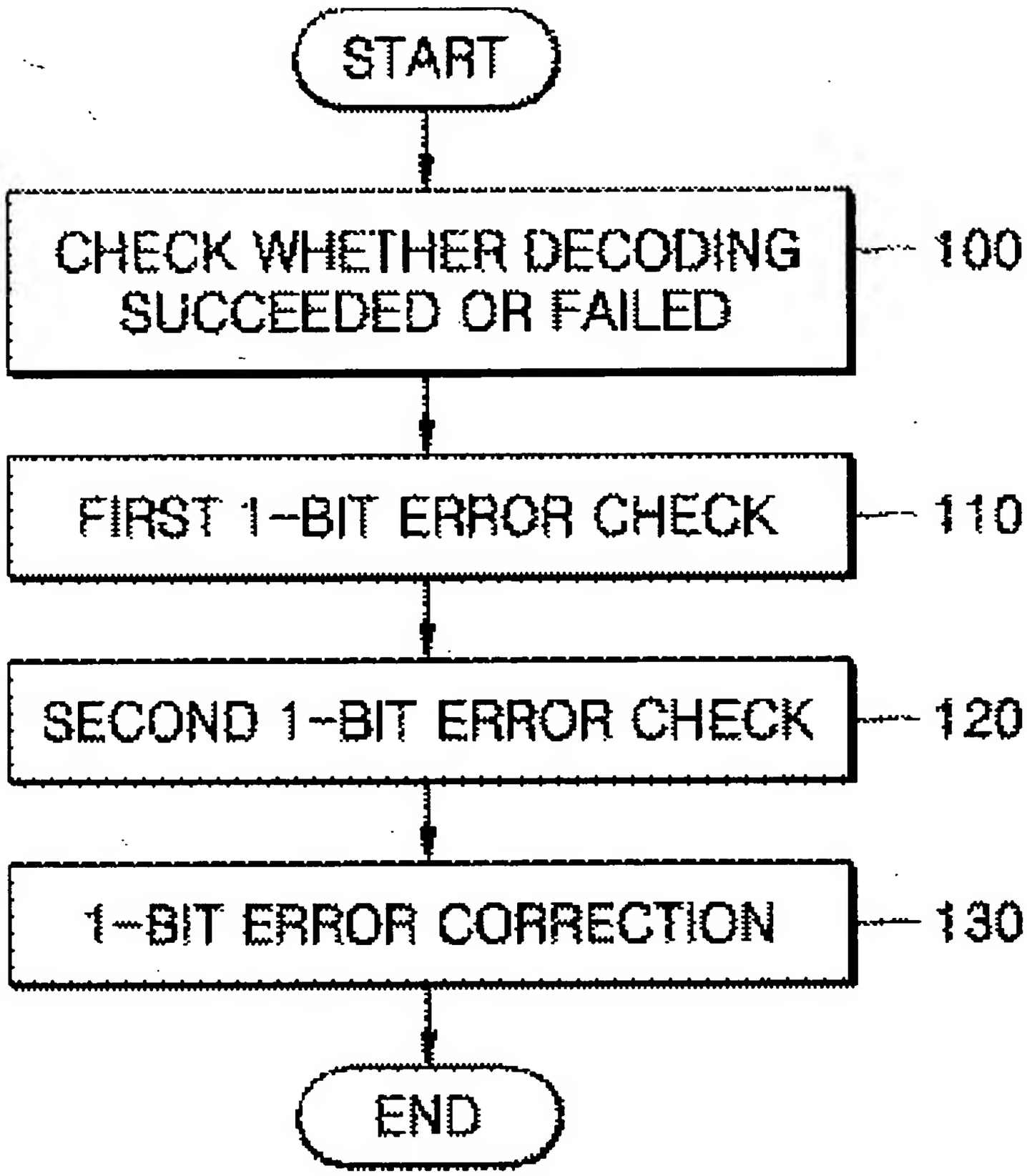


FIG. 2

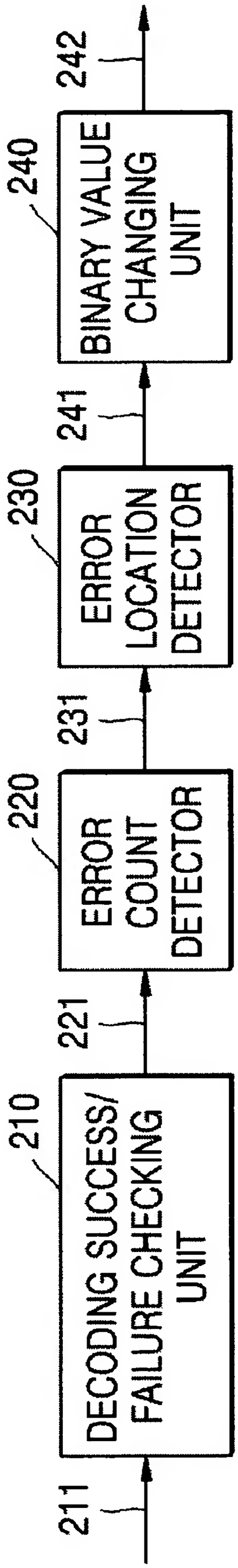

DECODING SUCCESS/ FAILURE CHECKING UNIT
210
211
ERROR COUNT DETECTOR
220
221
ERROR LOCATION DETECTOR
230
231
BINARY VALUE CHANGING UNIT
240
241
242

FIG. 3

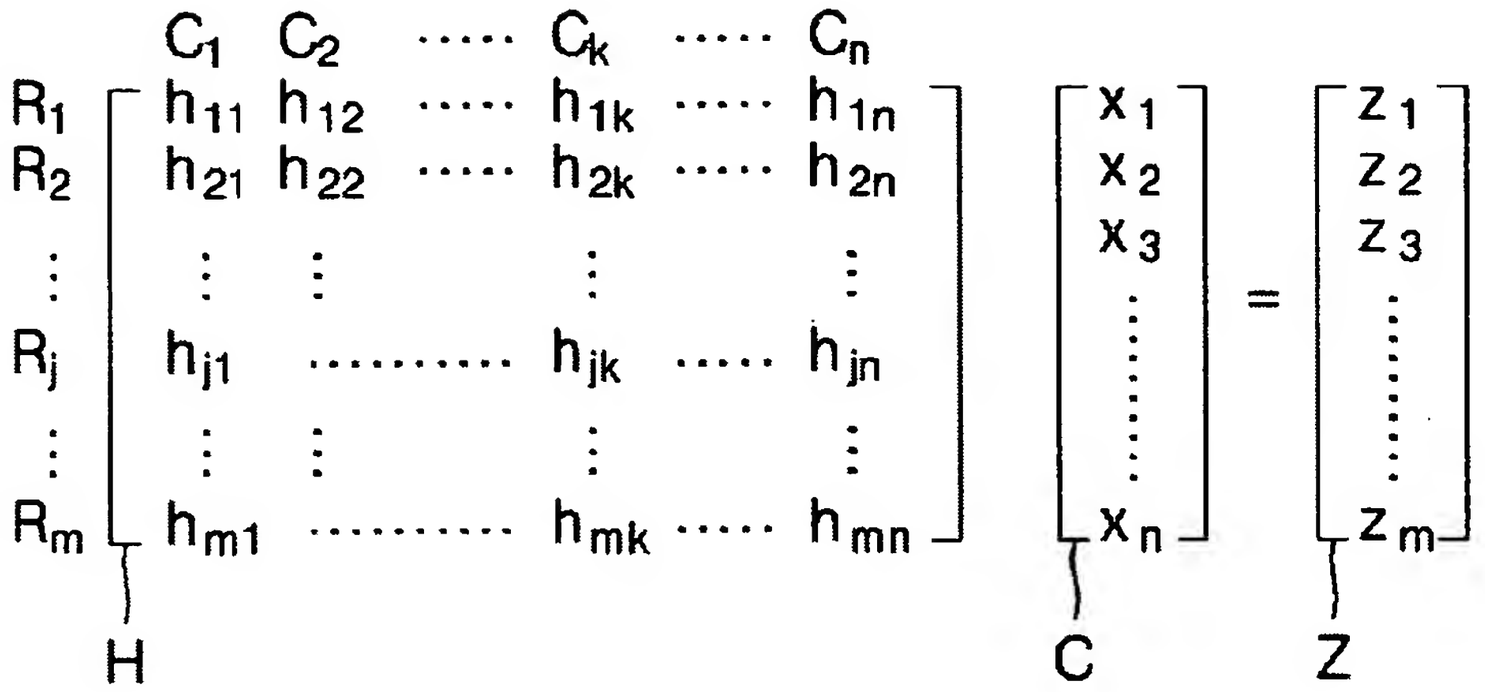

C1 C2 ..... Ck ..... Cn
R1 h11 h12 ..... h1k h1n
R2 h21 h22 ..... h2k h2n
Rj hj1 ..... hjk ..... hjn
Rm hm1 ..... hmk ..... hmn
H
x1 x2 x3 xn
C
=
z1 z2 z3 zm
Z

FIG. 4

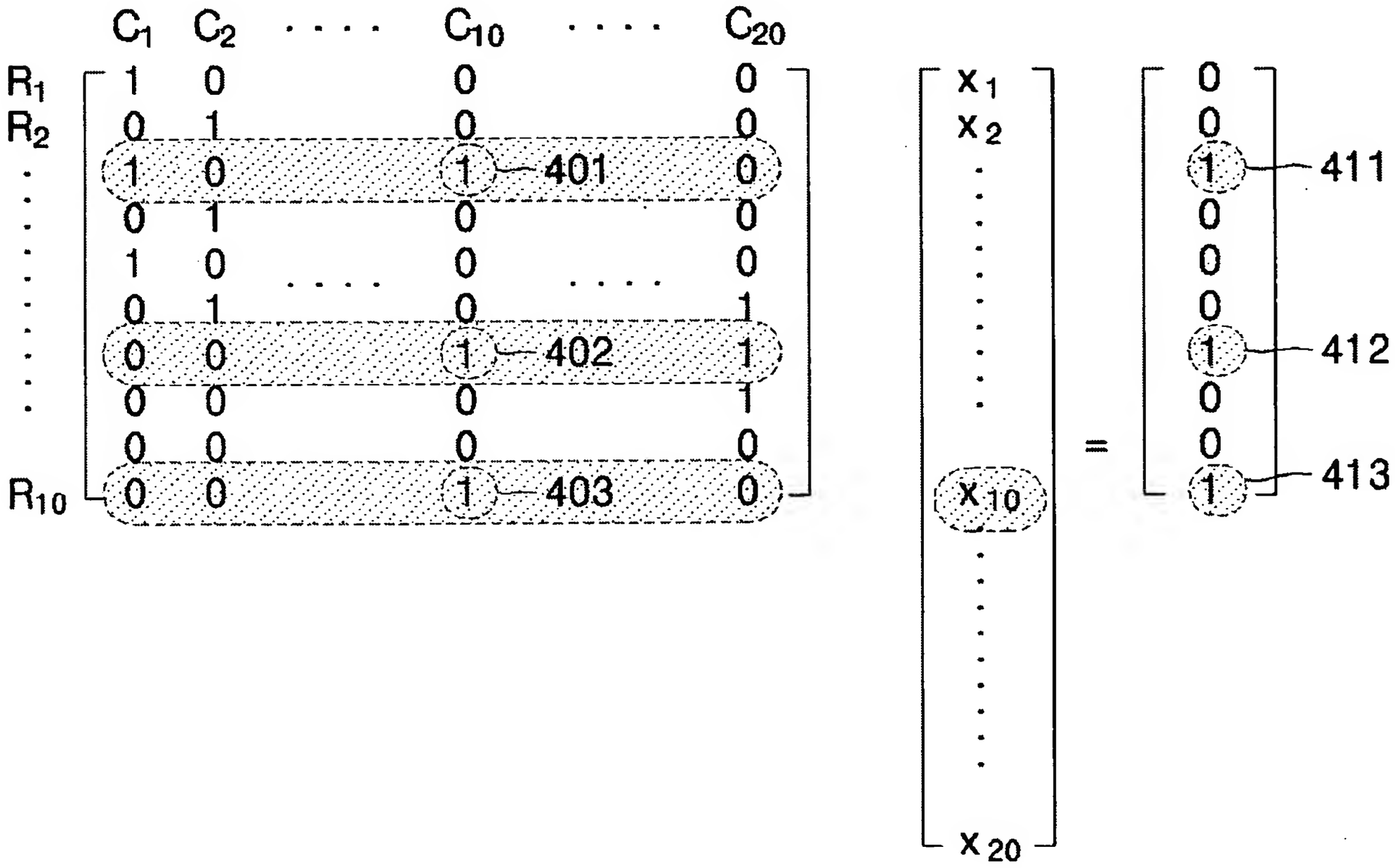
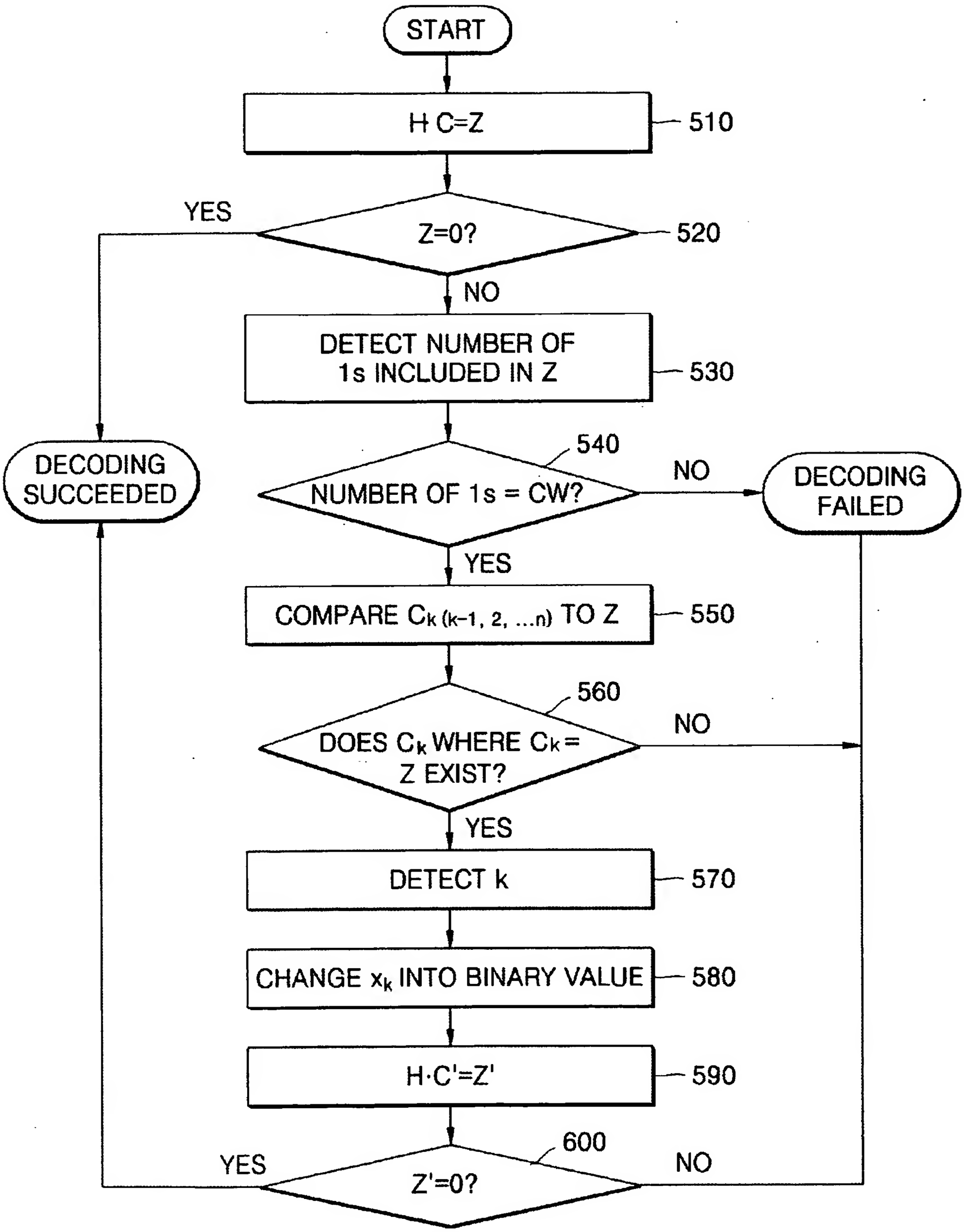

C1 C2 .... C10 .... C20
R1 1 0 0 0
R2 0 1 0 0
1 0 1 401 0
0 1 0 0
1 0 0 0
0 1 0 1
0 0 1 402 1
0 0 0 1
0 0 0 0
R10 0 0 1 403 0
x1 x2 x10 x20
=
0 0 1 411
0 0 0
1 412
0 0
1 413

FIG. 5


START
H C=Z
510
YES
Z=0?
520
NO
DETECT NUMBER OF 1s INCLUDED IN Z
530
DECODING SUCCEEDED
540
NUMBER OF 1s = CW?
NO
DECODING FAILED
YES
COMPARE $C_{k\ (k-1,\ 2,\ \ldots n)}$ TO Z
550
560
DOES C_k WHERE C_k = Z EXIST?
NO
YES
DETECT k
570
CHANGE x_k INTO BINARY VALUE
580
H·C'=Z'
590
600
YES
Z'=0?
NO